Amendments to the Specification:

Please replace paragraph [32] with the following amended paragraph:

Referring to Figure 6, the X-axis sensing traces are collectively labeled as reference number 605-X, and the Y-axis sensing traces are collectively labeled as reference number 605-Y. A pair of multiplexors 601, 602 are coupled to the X-axis sensing traces 605-X, one implementing the "a" switches for the X axis and the other implementing the "b" switches for the X axis. Thus, in this example, multiplexor 601 implements "a" switches that couple selected X-axis "a" sensing traces to the processing unit 302, and multiplexor ~~402~~ 602 implements "b" switches that couple selected X-axis "b" sensing traces to ground.

Please replace paragraph [33] with the following amended paragraph:

Another pair of multiplexors 603, 604 are coupled to the sensing traces 605-Y, one implementing the "a" switches for the Y axis and the other implementing the "b" switches for the Y axis. Thus, in this example, multiplexor 603 implements the "a" switches that couple selected Y-axis "a" sensing traces to the processing unit ~~203~~ 302 (or to a separate processing unit), and multiplexor ~~404~~ 604 implements "b" switches that couple selected Y-axis "b" sensing traces to ground. Although two multiplexors are shown for each axis, any combination of multiplexors may be used. For example, multiplexors 601 and 602 may be combined as a single multiplexor, or one or both may be divided into additional multiplexors. Moreover, the X and Y axes may share one or more multiplexors. Each set of sensing traces 605-X, 605-Y provides 2N signal paths, where N is the number of "a" (or "b") sensing traces for the respective sensing axis.

Please replace paragraph [34] with the following amended paragraph:

The "a" and "b" switches are shown in Figure 3 as being single-pole single-throw (SPST) switches. However, the "a" and "b" switches may be other types of switches, such as single-pole dual-throw (SPDT) switches, single-pole multi-throw switches, multi-pole multi-throw switches, or any other type of switch or combination of switches. For example, a single "a" or "b" switch SPDT as schematically shown may actually be implemented as two parallel SPST switches. Referring to the example of Figure 7, the "a" and "b" switches are each shown as SPDT switches. In this example, each of the sensing traces ~~304~~605, both "a" sensing traces and "b" sensing traces, can be switched to either the processing unit ~~303~~ 302or to ground. By equipping each sensing trace in this way with dual switching capability, greater flexibility may be provided in the variety of sensing loops that may be selected. Using such an arrangement, each sensing trace can function as either the left or right leg of a sensing loop where the sensing traces are used to sense along the X sensing axis. Where the sensing traces are used to sense along the Y sensing axis, each sensing trace can function as either the upper or lower leg of a sensing loop.